## 10/537267

Application No.: Not Yet Assigned

## JC17 Rec'd PCT/PTO 0 1 JUN 2005

## **AMENDMENTS TO THE CLAIMS**

- 1. (Currently amended) A speed sensor for a moving member (8), the sensor being characterized in that it comprises comprising means (27; 34) for constituting a magnetic singularity on a portion (9) of the moving member, and a sleeve slidably receiving said portion and including at least an annular coil (20, 21) and an annular permanent magnet (22, 23) disposed on a common axis between annular pole pieces (24, 25).
- 2. (Currently amended) A sensor according to claim 1, eharacterized in that wherein the magnetic singularity (27; 34), the coils (20, 21), and the permanent magnet (22, 23) are arranged so that the coil provides a linear signal that is independent of the position of the moving member (8).
- 3. (Currently amended) A sensor according to claim 2, characterized in that wherein the sleeve has two coils (20, 21) and a tubular body (17) having two magnetic assemblies (18, 19) mounted in opposition to each other on a common axis, which assemblies are separated by a spacer (28), each having one of the coils and, on its side remote from the spacer, one of the pole pieces (24, 25) in such a manner that the spacer, the coils, and the pole pieces form a housing (26) for slidably receiving the portion (9) of the moving member (8) that presents the magnetic singularity (27; 34).
- 4. (Currently amended) A sensor according to claim 3, eharacterized in that wherein the sleeve has two permanent magnets (22, 23), each magnetic assembly (18, 19) having one of the permanent magnets, with the permanent magnet being mounted around its coil (20, 21).
- 5. (Currently amended) A sensor according to claim 1, characterized in that wherein the means for constituting the magnetic singularity comprise a ferromagnetic insert (27) secured to a non-magnetic portion of the moving member (8).
- 6. (Currently amended) A sensor according to claim 1, characterized in that wherein the means for constituting the magnetic singularity comprise an outside groove (34) made in a ferromagnetic portion of the moving member (8).